

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-61 (cancelled)

62. (previously presented) An image data communication system, comprising:

an image data distribution device for sequentially distributing a plurality of sets of identical moving picture image data with prescribed time differences; and

an image data reception device for receiving moving picture image data that are distributed from said image data distribution device while moving among a plurality of radio areas;

wherein:

said image data reception device, at a time of handover that occurs when moving from a current radio area to another neighboring radio area, receives over a prescribed interval said plurality of sets of identical moving picture image data having prescribed time differences that are distributed from said image data distribution device and selects

necessary data from the received moving picture image data to reconstruct one set of moving picture image data; and

said image data distribution device, during only said prescribed interval, performs priority control such that said plurality of sets of identical moving picture image data having prescribed time differences are received together in said image data reception device.

63. (previously presented) An image data communication system according to claim 62, wherein said plurality of sets of identical moving picture image data are a plurality of sets of encoded image data in which identical image data have been encoded by the same encoding method.

64. (previously presented) An image data communication system according to claim 63, wherein:

said image data distribution device includes:
encoded image data transmission means for both sequentially transmitting on a transmission line said plurality of sets of identical encoded image data with prescribed time differences in at least said prescribed interval and, during this transmission, conferring to each of said plurality of

sets of identical encoded image data information that is necessary for said reconstruction; and

said image data reception device includes:

encoded image data reception means for receiving said plurality of sets of identical encoded image data having said prescribed time differences by way of said transmission line from said encoded image data transmission means; and

reconstruction means for referring to information necessary for said reconstruction that has been conferred to the encoded image data to reconstruct, as one set of encoded image data, said plurality of sets of identical encoded image data having said prescribed time differences that have been received in said encoded image data reception means.

65. (previously presented) An image data communication system according to claim 64, wherein:

said image data distribution device further includes a control means for implementing prescribed control setting on said transmission line for said plurality of sets of identical encoded image data having prescribed time differences that are transmitted from said encoded image data transmission means; and

said control means performs said prescribed control setting such that during normal operation that excludes said prescribed interval, of said plurality of sets of identical encoded image data having prescribed time differences, at least a prescribed set of encoded image data is received with priority in said image data reception device; and sets said prescribed control such that during said prescribed intervals, said plurality of sets of identical encoded image data having prescribed time differences are both received in said image data reception device.

66. (previously presented) An image data communication system according to claim 65, wherein:

said image data reception device further includes a control information processing means for determining the start and end of said handover based on a reception state of encoded image data in said encoded image data reception means;

said control information processing means both transmits a start notification to said control means when said handover starts and transmits an end notification to said control means after the passage of a prescribed time interval from the end of said handover; and

said control means implements said prescribed control setting with the interval from the reception of said start notification until the reception of said end notification as said prescribed interval.

67. (previously presented) An image data communication system according to claim 65, wherein:

said image data reception device further includes a control information processing means for determining the start of said handover based on the reception state of encoded image data in said encoded image data reception means;

said control information processing means transmits to said control means a first request to alter said prescribed control setting at the start of said handover, and transmits to said control means a second request to alter said prescribed control setting after the passage of a prescribed time interval from the end of said handover; and

said control means performs said prescribed control setting with the interval from the reception of said first request until the reception of said second request as said prescribed interval.

68. (previously presented) An image data communication system according to claim 65, wherein:

said image data reception device further includes a reception state report means for reporting the reception state of encoded image data in said encoded image data reception means to said image data distribution device at prescribed intervals; and

said control means determines the start and end of said handover based on reports of the reception state from said reception state report means, and implements said prescribed control setting with an interval that includes said handover interval and an interval from said end until the passage of a prescribed time interval as said prescribed interval.

69. (previously presented) An image data communication system according to claim 65, wherein said prescribed control setting is routing priority control on said transmission line.

70. (previously presented) An image data communication system according to claim 69, wherein during said normal operation, said control means sets said routing priority that relates to, of said plurality of sets of identical

encoded image data having prescribed time differences, said prescribed encoded image data higher than for other encoded image data; and during said prescribed interval, both sets said routing priority that relates to said prescribed encoded image data lower than during said normal operation and sets said routing priority that relates to said other encoded image data higher than during said normal operation.

71. (previously presented) An image data communication system according to claim 65, wherein said prescribed control setting is power control on a radio transmission line that is a portion of said transmission line.

72. (previously presented) An image data communication system according to claim 71, wherein: during said normal operation, said control means sets power on said radio transmission line that relates to, of said plurality of sets of identical encoded image data having prescribed time differences, said prescribed encoded image data higher than for other encoded image data, and during said prescribed interval, both sets power on said radio transmission line that relates to said prescribed encoded image data lower than during said normal operation and sets power on said

radio transmission line that relates to said other encoded image data higher than during said normal operation.

73. (previously presented) An image data communication system according to claim 65, wherein said prescribed control setting is the bit rate of encoded image data that are transmitted on said transmission line.

74. (previously presented) An image data communication system according to claim 73, wherein: during said normal operation, said control means sets said bit rate that relates to, of said plurality of sets of identical encoded image data having prescribed time differences, said prescribed encoded image data higher than for other encoded image data; and during said prescribed interval, both sets said bit rate that relates to said prescribed encoded image data lower than during said normal operation and sets said bit rate that relates to said other encoded image data higher than during said normal operation.

75.-79. (canceled)

80. (previously presented) An image data communication system comprising:

an image data distribution device for sequentially distributing with prescribed time differences a plurality of sets of encoded image data in which identical image data are encoded by the same encoding method; and

an image data reception device for, at a time of handover that occurs when moving from a current radio area to another neighboring radio area, receiving over a prescribed interval said plurality of sets of encoded image data having prescribed time differences that have been distributed from said image data distribution device, and selecting necessary data from the encoded image data that have been received to reconstruct one set of encoded image data;

wherein:

said image data distribution device includes encoded image data transmission means for performing multicast or broadcast distribution of said plurality of sets of identical encoded image data having prescribed time differences in at least said prescribed interval; and

said image data reception device is configured so as to, during said prescribed interval, receive more multicast

or broadcast traffic of said plurality of sets of encoded data than during normal operation that excludes said prescribed interval.

81. (previously presented) An image data communication system comprising:

an image data distribution device for sequentially distributing with prescribed time differences a plurality of sets of encoded image data in which identical image data are encoded by the same encoding method; and

an image data reception device for, at a time of handover that occurs when moving from a current radio area to another neighboring radio area, receiving over a prescribed interval said plurality of sets of encoded image data having prescribed time differences that have been distributed from said image data distribution device, and selecting necessary data from the encoded image data that have been received to reconstruct one set of encoded image data;

wherein:

said image data distribution device includes an encoded image data transmission means for performing multicast distribution of said plurality of sets of identical encoded

image data having prescribed time differences in at least said prescribed interval; and

said image data reception device includes a multicast group joining/leaving means for, during said prescribed interval, joining more multicast groups of said plurality of sets of encoded data than during normal operation that excludes said prescribed interval.

82. (previously presented) An image data distribution device that is connected so as to allow communication by way of a transmission line with an image data reception device that moves among a plurality of radio areas; said image data distribution device comprising:

encoded image data generation means for generating a plurality of sets of identical encoded image data in which identical image data are encoded;

encoded image data transmission means for sequentially transmitting on said transmission line a plurality of sets of identical encoded image data that have been generated by said encoded image data generation means with prescribed time differences; and

control means for implementing prescribed control setting on said transmission line such that, only during a

prescribed interval at a time of handover that occurs when said image data reception device moves from a current radio area to another neighboring radio area, said plurality of sets of identical encoded image data having prescribed time differences that are transmitted from said encoded image data transmission means are received in said image data reception device over a prescribed interval.

83. (previously presented) An image data distribution device according to claim 82, wherein said prescribed control setting is routing priority control on said transmission line.

84. (previously presented) An image data distribution device according to claim 83, wherein said control means, during said normal operation that excludes said prescribed interval, sets said routing priority that relates to, of said plurality of sets of identical encoded image data having prescribed time differences, at least said prescribed encoded image data higher than for other encoded image data; and during said prescribed interval, both sets said routing priority that relates to said prescribed encoded image data lower than during said normal operation and sets said

routing priority that relates to said other encoded image data higher than during said normal operation.

85. (previously presented) An image data distribution device according to claim 82, wherein said prescribed control setting is power control on a radio transmission line that is a portion of said transmission line.

86. (previously presented) An image data distribution device according to claim 85, wherein

said control means, during said normal operation that excludes said prescribed interval, sets power on said radio transmission line that relates to, of said plurality of sets of identical encoded image data having prescribed time differences, at least said prescribed encoded image data higher than for other encoded image data, and during said prescribed interval, both sets power on said radio transmission line that relates to said prescribed encoded image data lower than during said normal operation and sets power on said radio transmission line that relates to said other encoded image data higher than during said normal operation.

87. (previously presented) An image data distribution device according to claim 82, wherein said prescribed control setting is the bit rate of encoded image data that are transmitted on said transmission line.

88. (previously presented) An image data distribution device according to claim 87, wherein said control means, during said normal operation that excludes said prescribed interval, sets said bit rate that relates to, of said plurality of sets of identical encoded image data having prescribed time differences, at least said prescribed encoded image data higher than for other encoded image data; and during said prescribed interval, both sets said bit rate that relates to said first encoded image data lower than during said normal operation and sets said bit rate that relates to said other encoded image data higher than during said normal operation.

89. (previously presented) An image data reception device that is connected so as to allow communication by way of a transmission line with an image data distribution device that performs multicast or broadcast distribution, with prescribed time differences, of each of a plurality of sets of identical encoded image data in which an identical image is encoded; said image data reception device comprising:

an encoded image data reception means for, at a time of handover that occurs when moving from a current radio area to

another neighboring radio area, receiving over a prescribed interval said sets of identical encoded image data having prescribed time differences that are distributed from said image data distribution device; and

data reconstruction means for selecting necessary data from said sets of identical encoded image data having prescribed time differences that have been received over said prescribed interval to reconstruct one set of encoded image data;

wherein said image data reception device is configured to, during said prescribed interval, receive more multicast or broadcast traffic of said plurality of encoded data than during normal operation that excludes said prescribed interval.

90. (previously presented) An image data reception device that is connected so as to allow communication by way of a transmission line with an image data distribution device that performs multicast distribution, with prescribed time differences, of each of a plurality of sets of identical encoded image data in which an identical image is encoded; said image data reception device comprising:

an encoded image data reception means for, at a time of handover that occurs when moving from a current radio area to another neighboring radio area, receiving over a prescribed interval said sets of identical encoded image data having prescribed time differences that are distributed from said image data distribution device;

data reconstruction means for selecting necessary data from said sets of identical encoded image data having prescribed time differences that have been received over said prescribed interval to reconstruct one set of encoded image data; and

a multicast group joining/leaving means for, during said prescribed interval, joining more multicast groups of said plurality of sets of encoded data than during normal operation that excludes said prescribed interval.

91. (previously presented) An image data communication method carried out in a communication system in which an image data distribution device and an image data reception device are connected so as to allow communication by way of a transmission line; said image data communication method comprising:

a first step in which said image data distribution device sequentially distributes a plurality of sets of identical moving picture image data with prescribed time differences to said image data reception device;

a second step in which said image data reception device, at a time of handover that occurs when moving from a current radio area to another neighboring radio area, receives over a prescribed interval said plurality of sets of identical moving picture image data having prescribed time differences that have been distributed from said image data distribution device, and selects necessary data from the moving picture image data that have been received to reconstruct one set of moving picture image data; and

a third step in which said image data distribution device performs priority control such that, only during said prescribed interval, said plurality of sets of identical moving picture image data having prescribed time differences are received together in said image data reception device.

92. (previously presented) An image data communication method according to claim 91, wherein:

said first step includes a step in which said image data distribution device, when transmitting said plurality of sets of identical moving picture image data, confers to each of said plurality of sets of identical moving picture image data information necessary for said reconstruction; and

said second step includes a step in which said image data reception device refers to said information necessary for said reconstruction that has been conferred to said moving picture image data to reconstruct said plurality of sets of identical moving picture image data having prescribed time differences that have been distributed from said image data distribution device in said prescribed interval as one set of moving picture image data.

93. (previously presented) An image data communication method according to claim 91, wherein said third step includes:

a step in which said image data distribution device, during normal operation that excludes said prescribed interval, sets prescribed control on said transmission line such that, of said

plurality of sets of identical moving picture image data having prescribed time differences, at least prescribed moving picture image data are received with priority in said image data reception device; and

a step in which said image data distribution device, during said prescribed interval, sets said prescribed control such that said plurality of sets of identical moving picture image data having prescribed time differences are received together in said image data reception device.

94. (previously presented) An image data communication method according to claim 93, wherein:

said second step includes:

a step in which said image data reception device determines the start and end of said handover based on the reception state of said moving picture image data; and

a step in which said image data reception device both transmits to said image data distribution device a start notification when said handover starts and transmits to said image data distribution device an end notification after the passage of a prescribed time interval from the end of said handover; and

said third step includes:

a step in which said image data distribution device implements said prescribed control setting with the interval from the reception of said start notification until reception of said end notification as said prescribed interval.

95. (previously presented) An image data communication method according to claim 93, wherein:

said second step includes:

a step in which said image data reception device determines the start and end of said handover based on the reception state of said moving picture image data; and

a step in which said image data reception device transmits to said image data distribution device a first request to alter said prescribed control setting when said handover starts, and transmits to said image data reception device a second request to alter said prescribed control setting after the passage of a prescribed time interval from the end of said handover; and said third step includes:

a step in which said image data distribution device performs said prescribed control setting with the interval from the reception of said first request until the reception of said second request as said prescribed interval.

96. (previously presented) An image data communication method according to claim 93, wherein:

said second step includes a step in which said image data reception device reports to said image data distribution device at prescribed time intervals the reception state of said moving picture image data; and

said third step includes a step in which said image data distribution device determines the start and end of said handover based on the reports of reception state from said image data reception device, and performs said prescribed control setting with the interval that includes the interval of said handover and the interval from said end until the passage of a prescribed time interval as said prescribed interval.

97. (previously presented) An image data communication method according to claim 93, wherein said prescribed control setting is control of routing priority on said transmission line.

98. (previously presented) An image data communication method according to claim 97, wherein said third step includes a step in which said image data distribution device, during said normal operation, sets said routing priority that relates to said prescribed moving picture image data of said plurality of sets of identical moving picture image data having prescribed time differences higher than for other moving picture image data, and during said prescribed interval, both sets said routing priority that relates to said prescribed moving picture image data lower than during said normal operation and sets said routing priority that relates to said other moving picture image data higher than during said normal operation.

99. (previously presented) An image data communication method according to claim 93, wherein said prescribed control setting is power control on a radio transmission line of said transmission line.

100. (previously presented) An image data communication method according to claim 99, wherein said third step includes a step in which said image data distribution device, during said normal operation, sets power on said radio transmission line that relates to said prescribed moving picture image data of said plurality of sets of identical moving picture image data having prescribed time differences higher than for other moving picture image data, and during said prescribed interval, both sets power on said radio transmission line that relates to said prescribed moving picture image data lower than during said normal operation and sets power on said radio transmission line that relates to said other moving picture image data higher than during said normal operation.

101. (previously presented) An image data communication method according to claim 93, wherein said prescribed control setting is the bit rate of encoded image data that are transmitted on said transmission line.

102. (previously presented) An image data communication method according to claim 101, wherein in said third step, said image data distribution device, during said normal operation, sets said

bit rate that relates to said prescribed moving picture image data of said plurality of sets of identical moving picture image data having prescribed time differences higher than for other moving picture image data, and during said prescribed interval, both sets said bit rate that relates to said prescribed moving picture image data lower than during said normal operation and sets said bit rate that relates to said other moving picture image data higher than during said normal operation.

103.-107. (canceled)

108. (previously presented) An image data communication method that is carried out in a communication system in which an image data distribution device and an image data reception device are connected so as to allow communication by way of a transmission line, said image data communication method comprising:

a first step in which said image data distribution device sequentially distributes a plurality of sets of identical moving picture image data with prescribed time differences; and

a second step in which said image data reception device, at a time of handover that occurs when moving from a current radio area to another neighboring radio area, receives over a prescribed interval said plurality of sets of identical moving picture image data having prescribed time differences that have been distributed from said image data distribution device, and selects necessary

data from the moving picture image data that have been received to reconstruct one set of moving picture image data;
wherein:

said first step includes a step wherein said image data distribution device performs multicast or broadcast distribution of each of said plurality of sets of identical moving picture image data having prescribed time differences; and

said second step includes a step wherein said image data reception device, during said prescribed interval, receives more multicast or broadcast traffic of said plurality of sets of identical moving picture image data than during normal operation that excludes said prescribed interval.

109. (previously presented) An image data communication method that is carried out in a communication system in which an image data distribution device and an image data reception device are connected so as to allow communication by way of a transmission line, said image data communication method comprising:

a first step in which said image data distribution device sequentially distributes a plurality of sets of identical moving picture image data with prescribed time differences to said image data reception device; and

a second step in which said image data reception device, at a time of handover that occurs when moving from a current radio area to another neighboring radio area, receives over a prescribed interval said plurality of sets of identical moving picture image

data having prescribed time differences that have been distributed from said image data distribution device, and selects necessary data from the moving picture image data that have been received to reconstruct one set of moving picture image data;
wherein:

said first step includes a step wherein said image data distribution device performs multicast distribution of each of said plurality of sets of identical moving picture image data having prescribed time differences; and

said second step includes a step wherein said image data reception device, during said prescribed interval, joins more multicast groups of said plurality of sets of identical moving picture image data than during normal operation that excludes said prescribed interval.

110. (previously presented) An image data communication method according to claim 91, wherein said plurality of sets of identical moving picture image data are a plurality of sets of encoded image data in which identical image data are encoded by the same encoding method.

111. (previously presented) A program that is used in a server that is connected so as to allow communication by way of a transmission line with a client terminal that moves among a plurality of radio areas, said program causing a computer of said server to execute:

a first process for generating a plurality of sets of identical encoded image data in which identical image data are encoded;

a second process for sequentially transmitting on said transmission line with prescribed time differences a plurality of sets of identical encoded image data that have been generated in said first process; and

a third process for, only in a prescribed interval at a time of handover that occurs when said client terminal moves from a current radio area to another neighboring radio area, performing prescribed control setting on said transmission line such that said plurality of sets of identical encoded image data having prescribed time differences that are transmitted in said second process are received in said client terminal.

112. (previously presented) A program according to claim 111, wherein said prescribed control setting is routing priority control on said transmission line.

113. (previously presented) A program according to claim 112, said program causing the computer of said server to further execute processes for:

during normal operation that excludes said prescribed interval, setting said routing priority that relates to at least prescribed encoded image data of said plurality of sets of

identical encoded image data having prescribed time differences higher than for other encoded image data; and

during said prescribed interval, both setting said routing priority that relates to said prescribed encoded image data lower than during said normal operation and setting said routing priority that relates to said other encoded image data higher than during said normal operation.

114. (previously presented) A program according to claim 111, wherein said prescribed control setting is power control on a radio transmission line that is a portion of said transmission line.

115. (previously presented) A program according to claim 114, said program causing the computer of said server to further execute processes for:

during normal operation that excludes said prescribed interval, setting power on said radio transmission line that relates to at least prescribed encoded image data of said plurality of sets of identical encoded image data having prescribed time differences higher than for other encoded image data; and

during said prescribed interval, both setting said power on said radio transmission line that relates to said prescribed encoded image data lower than during said normal operation and

setting power on said radio transmission line that relates to said other encoded image data higher than during said normal operation.

116. (previously presented) A program according to claim 111, wherein said prescribed control setting is the bit rate of encoded image data that are transmitted on said transmission line.

117. (previously presented) A program according to claim 116, said program causing the computer of said server to further execute processes for:

during normal operation that excludes said prescribed interval, setting said bit rate that relates to at least prescribed encoded image data of said plurality of sets of identical encoded image data having prescribed time differences higher than for other encoded image data; and

during said prescribed interval, both setting said bit rate that relates to said first encoded image data lower than during said normal operation and setting said bit rate that relates to said other encoded image data higher than during said normal operation.

118. (previously presented) A program that is used in a client terminal that is connected by way of a transmission line so as to allow communication with a server that performs multicast or broadcast distribution, with prescribed time differences, of each of a plurality of sets of identical encoded image data in which

identical images are encoded, wherein said program causes a computer of said client terminal to execute processes for:

at a time of handover that occurs when moving from a current radio area to another neighboring radio area, receiving over a prescribed interval more multicast or broadcast traffic of said plurality of sets of encoded data that are distributed from said server than during interval other than said prescribed interval; and

selecting necessary data from said sets of identical encoded image data that have been received during said prescribed interval to reconstruct one set of encoded image data.

119. (previously presented) A program that is used in a client terminal that is connected by way of a transmission line so as to allow communication with a server that performs multicast distribution with prescribed time differences of each of a plurality of sets of identical encoded image data in which identical images are encoded, wherein said program causes a computer of said client terminal to execute processes for:

at a time of handover that occurs when moving from a current radio area to another neighboring radio area, joining more multicast groups of said plurality of sets of encoded data over a prescribed interval than during intervals other than that prescribed interval; and

selecting necessary data from said sets of identical encoded image data that have been received during said prescribed interval to reconstruct one set of encoded image data.